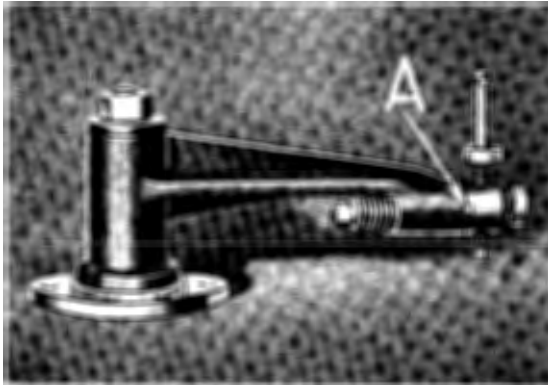


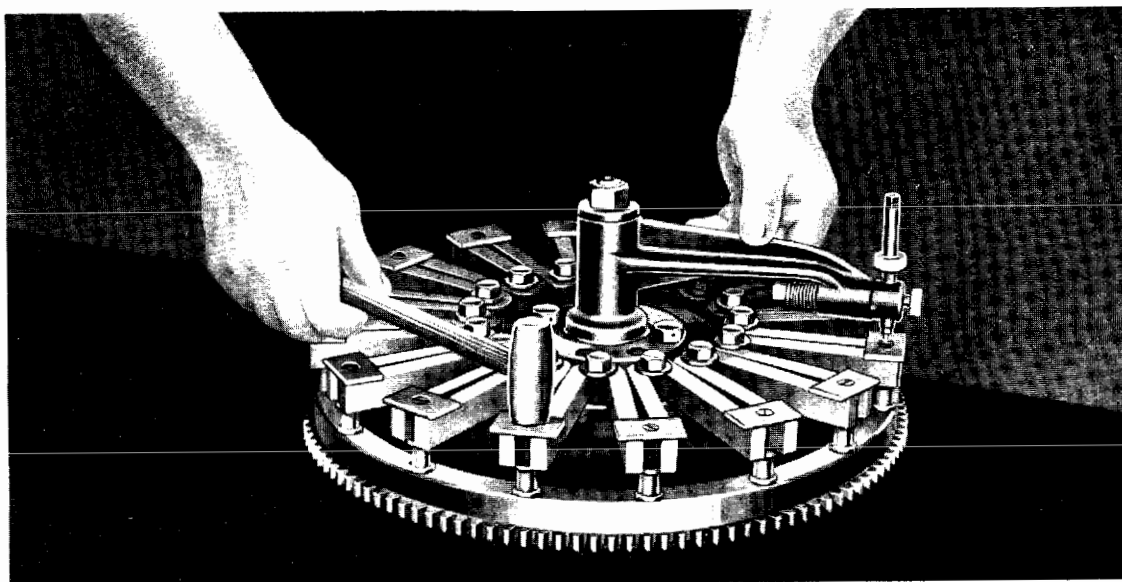
Magneto Gap Gauge

*Fig. 296**Fig. 297*

A K. R. Wilson magneto gap gauge (see Fig. 296) provides a quick and accurate method of checking the height and alignment of the magnet clamps as well as saving considerable time in obtaining the correct gap between the magnet clamps and coil cores when assembling the transmission to the engine.

To check the alignment of the magnet clamps with the gauge, first make sure that the flange of the transmission shaft is free from dirt and burrs, also see that the contact surface of the gauge is absolutely clean as the presence of even a small particle of dirt will throw the

*Fig. 298*

*Fig. 299*

gauge out of alignment. Next turn the stem of the gauge in a horizontal position as shown in Fig. 297. The stem can be turned by pulling forward on the front end of the gauge until the pin (see "A," Fig. 296) is disengaged from the slot. The gauge is then bolted to the shaft. After the gauge is bolted in position turn the stem so that the short end points downward as shown in Fig. 298. Turning the stem in a horizontal position prevents any possibility of damaging the gauge. For example, if the gauge was installed with the stem in a vertical position and the end of the stem rested on a magnet clamp which was a trifle high there would be a possibility of breaking or springing the gauge when the bolts which hold it to the flange of the transmission shaft were tightened.

After the gauge is installed, revolve the gauge until the lowest magnet clamps are found, then adjust the stem until it touches one of these clamps. To adjust the stem, loosen the lock screw (see "A," Fig. 298) and turn the adjusting screw "B" until the stem just comes in contact with the magnet clamp. The adjustment is then locked by tightening screw "A."

After adjusting the stem, slowly revolve the gauge. This will detect any variation in the height of the magnets. Magnets which are high can be set to the correct height by lightly tapping the magnet clamps with a copper or lead hammer (see Fig. 299) and tightening the screws. Care must be exercised in performing this operation to prevent damaging the magnet supports. When the magnets have been adjusted to a uniform height, see that the magnet clamp screws are all drawn down tightly and the ends of the screws are securely peined. The clamps should also be inspected, as it is absolutely essential that they be drawn down tightly against the magnets.

Checking the Gap Between Magnet Clamps and Coil Cores

The magneto coil support is assembled to the cylinder block so there will be a clearance (gap) of not less than .025 or more than .040" between the magnet clamps and coil cores after the transmission is installed. To obtain this adjustment quickly, first carefully clean the

*Fig. 300*

contact surfaces of the magneto coil and cylinder block, then assemble the coil support to the cylinder block by running in the screws which hold it in place, replacing the same number of shims between the coil and cylinder block as were withdrawn when the coil was removed.

Clean off any dirt or burrs from the flange of the crankshaft and see that the contact surface of the gauge is absolutely clean. Next turn the stem of the gauge in a horizontal position and bolt the gauge to the crankshaft flange. After the bolts have been drawn down, turn the stem of the gauge so that the long end points downward as shown at "A," Fig. 300. **When installing the gauge do not alter the original setting of the stem which was made when adjusting the magnets, as this setting must be used to obtain the correct adjustment of the coil.**

With the gauge bolted to the flange of the crankshaft, the coil support is now adjusted so that the stem of the gauge will lightly touch the faces of all of the coil cores on the upper half of the coil support, leaving a gap of from .006 to .010" between the end of the stem and the faces of the coil cores on the lower half of the support when the gauge is slowly revolved. The coil support is adjusted by removing or replacing shims between the support and the cylinder block. Shims of different thicknesses are provided so that extremely close adjustment can be obtained. To install the "U" shaped paper shims, part No. 3275, it is unnecessary to remove the coil support as the shims can be placed in position by loosening the four magneto coil cap screws and moving the support slightly forward. When performing this operation always turn the gauge stem in a horizontal position (see Fig. 297).

When the correct adjustment is obtained, wire the four magneto coil cap screws together and assemble the transmission to the engine. After installing the transmission, the gap should be checked with thickness gauges (feelers) to make sure that the coil support has been properly adjusted so that there is a gap of from .025 to .040" between the magnet clamps and coil cores.

A magneto gap gauge, similar in design to the one shown in Fig. 296, is also furnished for the Fordson tractor.